

CLAIMS

What is claimed is:

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1. A dissection tool, comprising:

a handle having a proximal end and a distal end;

an elongated dissecting member having a proximal end and a distal end, the elongated dissecting member extending from the distal end of the handle; and

10 a light source provided at the distal end of the dissecting member, the light source adapted to provide a visible locating reference through the skin.

2. The dissection tool of claim 1, further comprising a battery adapted to provide power to the light source.

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3. The dissection tool of claim 1, further comprising a power line having a distal end extending from the light source and a proximal end extending to at least a surface of the handle, the proximal end of the power line coupled to a connector adapted to matingly engage a connector of an external power source.

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4. The dissection tool of claim 1, further comprising a switch provided on the handle of the dissection tool, wherein the switch is adapted to toggle the light source off and on.

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5. The dissection tool of claim 1, wherein the light source comprises a light emitting diode.

6. The dissection tool of claim 1, wherein the light source comprises an incandescent bulb.

5 7. The dissection tool of claim 1, wherein the light source comprises a color filter.

8. The dissecting tool of claim 1, further comprising a fluid channel system extending from the proximal end of the elongated dissecting member to the distal end of the elongated dissecting member, the fluid channel system terminating in a port system.

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9. The dissecting tool of claim 8, wherein the fluid channel system is adapted to transport a pharmacological agent.

15 10. The dissecting tool of claim 9, wherein the pharmacological agent comprises one or more of an analgesic, an antibiotic, and an antiseptic agent.

11. The dissecting tool of claim 8, wherein a first fluid channel is adapted to transport irrigation fluid and a second fluid channel is adapted to transport a pharmacological agent.

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12. A dissection tool, comprising:
a handle having a proximal end and a distal end;
an elongated dissecting member having a proximal end and a distal end, the
dissecting member extending from the distal end of the handle;
5 a light source provided proximally of the distal end of the dissecting member;
and
a transmission member adapted to couple light from the light source to the
distal end of the dissecting member, wherein light projected from the distal end of the
dissecting member provides a visible locating reference through the skin.

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13. The dissection tool of claim 12, wherein the light source is positioned at
the handle.

14. The dissection tool of claim 12, wherein the light source is located
15 externally of the dissection tool.

15. The dissection tool of claim 12, wherein the light source is located
externally of the dissection tool, and the transmission member extends from the
distal end of the dissecting member to at least a surface of the handle, a proximal
20 end of the transmission member coupled to a connector adapted to matingly engage
a connector of the externally located light source.

16. The dissection tool of claim 15, wherein the transmission member
comprises a fiber-optic cable.

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17. The dissection tool of claim 12, wherein the transmission member
comprises a light pipe.

18. The dissection tool of claim 12, wherein the transmission member comprises a fiber-optic cable.

5 19. The dissection tool of claim 12, wherein the light source comprises a light emitting diode.

20. The dissection tool of claim 12, wherein the light source comprises an incandescent bulb.

10 21. The dissection tool of claim 12, wherein the light source comprises a color filter.

15 22. The dissection tool of claim 12, further comprising a battery adapted to provide power to the light source.

23. The dissection tool of claim 12, further comprising a power line having a distal end extending from the light source and a proximal end extending to at least an exterior surface of the handle, the proximal end of the power line coupled to a connector adapted to matingly engage a connector of an external power source.

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24. The dissection tool of claim 12, further comprising a switch, wherein the switch is adapted to toggle the light source between off and on states.

25 25. The dissecting tool of claim 12, further comprising a fluid channel system extending from the proximal end of the elongated dissecting member to the distal end of the elongated dissecting member, the fluid channel system terminating in one or more ports.

26. The dissecting tool of claim 25, wherein the fluid channel system is adapted to transport a pharmacological agent.

5 27. The dissecting tool of claim 26, wherein the pharmacological agent comprises one or more of an analgesic, an antibiotic, and an antiseptic agent.

28. The dissecting tool of claim 25, wherein a first fluid channel is adapted to transport irrigation fluid and a second fluid channel is adapted to transport a pharmacological agent.

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29. A method of dissecting subcutaneous tissue, comprising:
providing a dissection tool with a transdermal illumination source;
dissecting subcutaneous tissue with the dissection tool; and
transdermally illuminating a path of dissection using light from the transdermal
15 illumination source.

30. The method of claim 29, further comprising coupling light from an external light source to the transdermal illumination source provided at a distal end of the dissection tool.

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31. The method of claim 29, further comprising coupling internally generated light to the transdermal illumination source provided at a distal end of the dissection tool.

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33. The method of claim 29, further comprising coupling power from a power source external to the dissection tool to the transdermal illumination source.

34. The method of claim 29, further comprising coupling power from a power source internal to the dissection tool to the transdermal illumination source.

5 35. The method of claim 29, wherein the transdermal illumination source comprises a light emitting diode.

36. The method of claim 29, wherein the transdermal illumination source comprises an incandescent bulb.

10 37. The method of claim 29, further comprising filtering the light to achieve a desired color.

15 38. The method of claim 29, wherein dissection is performed only in a subcutaneous tissue plane.

39. The method of claim 29, further comprising guiding the dissection using the transdermal illumination.

20 40. The method of claim 29, further comprising delivering a fluid along the path of dissection from the dissection tool.

41. The method of claim 40, wherein the fluid comprises a pharmacological agent.

25 42. The method of claim 41, wherein the pharmacological agent comprises one or more of an analgesic, an antibiotic, and an antiseptic agent.

43. The method of claim 29, further comprising delivering a pharmacological fluid and an irrigation fluid along the path of dissection from the dissection tool.

5 44. A dissection tool, comprising:
a handle having a proximal end and a distal end;
an elongated dissecting member extending from the distal end of the handle; and
means for illuminating a path of subcutaneous tissue dissection.

10 45. The dissection tool of claim 44, further comprising means for coupling external power to the illuminating means.

15 46. The dissection tool of claim 44, further comprising means for providing internal power to the illuminating means.

 47. The dissection tool of claim 44, further comprising means for switching the illuminating means between off and on states.

20 48. The dissection tool of claim 44, further comprising means for coupling light from an external light source to the illuminating means.

 49. The dissection tool of claim 44, further comprising means for coupling light from an internal light source to the illuminating means.

25 50. The dissection tool of claim 44, wherein the illuminating means comprises a light emitting diode.

51. The dissection tool of claim 44, wherein the illuminating means comprises an incandescent bulb.

52. The dissection tool of claim 44, wherein the illuminating means
5 comprises means for color filtering light.

53. A dissection tool, comprising:
a handle having a proximal end and a distal end;
an elongated dissecting member extending from the distal end of the
10 handle, the dissecting member having a proximal end, a distal end, and at least one curved portion; and
an optical location indicator provided at the distal end of the dissecting member and adapted to provide a visual indication of a location of the distal end of the dissecting member through the dermus.

15 54. The dissection tool of claim 53, wherein the elongated dissecting member has a curvature appropriate for dissection along a plane that follows a curvature of a rib-cage.

20 55. The dissection tool of claim 53, wherein the elongated dissecting member has a generally arcuate shape.

56. The dissection tool of claim 53, further comprising means for providing power to the optical location indicator.

25 57. The dissection tool of claim 53, further comprising means for switching the optical location indicator between off and on states.

58. The dissection tool of claim 53, wherein the optical location indicator comprises a light emitting diode.

5 59. The dissection tool of claim 53, wherein the optical location indicator comprises an incandescent bulb.

60. The dissection tool of claim 53, wherein the optical location indicator comprises a color filter.

10 61. The dissection tool of claim 53, further comprising a fluid channel system extending between the proximal and distal ends of the dissecting member, the fluid channel system terminating in a port system.

15 62. The dissection tool of claim 61, wherein the fluid channel system is adapted to transport a pharmacological agent.

63. The dissection tool of claim 62, wherein the pharmacological agent comprises one or more of an analgesic, an antibiotic, and an antiseptic agent.